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INTERTEC PUBLISHING CORP.

March 7, 1980 • Vol. 95 • No. 6

Implement & Tractor

The Business Magazine of the Farm and Industrial Equipment Industry

in this issue...

8: FIEI Marketing & Management Conference. The issue of big government dominates, as speakers focus on electing fiscally responsible congressmen, re-establishing incentives, freedom from restraints on research, declining productivity and executive stress.

12: Aiming at Big Power Specialization. Earl Christianson reasons that American farmers look for quality in a dealership—that means specialization—and *that* means "sophistication." Hence, you have CI Equipment, Elbow Lake, Minn., a four-wheel-drive specialty operation with Cadillac looks and style, and with a shop that aims to give Caterpillar-type service.

16: M&W's 'Aquahol' Injection System. A new water-alcohol injection system for turbocharged diesel tractors is said to cut diesel fuel by 30 per cent with no loss of horsepower.

22: Under-Row Ripping: Potential and Problems. The practicability of sub-soiling has been a subject of debate for many years, but recent tests have determined that under certain conditions the practice will improve root development and crop yield.

32: Britain's Smithfield Show Reflects Lackluster Market. The last remaining British-made combine, the Fisher-Humphries, leads the annual parade of European farm equipment.

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RETAIL SALES OF WHEEL TRACTORS*
(In Units)

	Total Wheel Tractors				Cumulative for Jan.-Nov., 1978				Cumulative for Jan.-Nov., 1979			
	Nov., 1978		Nov., 1979		Farm Type				Farm Type			
	Farm	Non-Farm	Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm
Alabama	177	40	94	27	2,636	52	2,688	804	2,531	41	2,572	600
Alaska	.....	6	.....	2	16	.....	16	52	19	1	20	38
Arizona	18	56	26	44	642	57	699	634	615	106	721	645
Arkansas	255	48	171	33	3,340	284	3,624	864	3,489	264	3,753	661
California	285	280	287	266	3,961	299	4,260	3,484	4,321	360	4,681	3,615
Colorado	25	47	20	49	891	88	979	738	964	167	1,131	693
Connecticut	16	37	17	16	186	3	189	341	180	2	182	260
Delaware	9	4	8	6	160	14	174	79	211	19	230	53
Florida	141	131	83	105	2,204	87	2,291	1,589	2,073	84	2,157	1,642
Georgia	176	55	127	46	3,856	56	3,912	926	3,487	45	3,532	848
Hawaii	3	5	1	8	67	6	73	90	50	4	54	103
Idaho	73	23	62	13	1,091	133	1,224	263	995	166	1,161	198
Illinois	403	162	323	85	7,108	739	7,847	1,997	6,287	865	7,152	1,635
Indiana	258	130	233	46	4,615	431	5,046	1,306	3,939	508	4,447	866
Iowa	547	52	337	26	8,298	448	8,746	564	8,290	735	9,025	452
Kansas	140	30	171	28	3,234	457	3,691	372	3,898	594	4,492	384
Kentucky	230	52	124	27	4,459	98	4,557	1,031	4,148	101	4,249	779
Louisiana	184	79	119	63	2,428	220	2,648	1,269	2,353	181	2,534	850
Maine	13	13	6	5	236	1	237	152	215	2	217	133
Maryland	38	29	27	38	723	22	745	636	751	40	791	514
Massachusetts	8	35	12	24	126	.....	126	479	138	.....	138	348
Michigan	168	139	116	78	2,935	228	3,163	1,505	2,656	258	2,914	1,434
Minnesota	348	53	361	21	5,965	535	6,500	621	5,742	922	6,664	699
Mississippi	238	36	170	21	3,337	198	3,535	746	3,179	156	3,335	572
Missouri	371	66	204	51	4,696	225	4,921	1,093	5,009	275	5,284	923
Montana	87	16	47	17	760	397	1,157	209	855	419	1,274	183
Nebraska	150	25	148	19	3,629	181	3,810	325	4,046	313	4,359	285
Nevada	1	13	4	15	77	1	78	212	119	9	128	215
New Hampshire	15	22	3	5	136	.....	136	157	135	1	136	111
New Jersey	10	56	14	37	335	6	341	762	289	8	297	686
New Mexico	11	19	15	13	381	23	404	355	429	24	453	323
New York	190	77	169	64	2,602	98	2,700	1,403	2,543	124	2,667	1,108
North Carolina	304	161	139	37	4,214	49	4,263	1,153	3,733	74	3,807	870
North Dakota	141	11	131	13	2,366	793	3,159	266	2,289	1,071	3,360	237
Ohio	321	208	247	77	5,255	320	5,575	2,051	4,229	387	4,616	1,673
Oklahoma	99	47	119	34	2,616	234	2,850	835	3,212	430	3,642	723
Oregon	62	40	54	44	1,262	78	1,340	584	1,197	95	1,292	535
Pennsylvania	113	159	127	71	2,552	27	2,579	1,918	2,247	43	2,290	1,429
Rhode Island	.....	5	2	.....	25	.....	25	62	25	.....	25	40
South Carolina	82	39	65	37	1,711	28	1,739	566	1,715	41	1,756	476
South Dakota	108	26	104	9	2,310	256	2,566	193	2,208	335	2,543	178
Tennessee	294	59	121	40	4,228	78	4,306	1,068	3,683	72	3,755	879
Texas	429	310	413	284	8,213	372	8,585	4,185	9,592	589	10,181	4,254
Utah	22	18	30	37	569	16	585	450	653	18	671	459
Vermont	20	6	14	3	357	4	361	89	373	9	382	71
Virginia	139	55	101	51	2,400	10	2,410	1,026	2,372	18	2,390	698
Washington	95	58	83	44	1,473	184	1,657	958	1,545	190	1,735	824
West Virginia	27	28	10	29	572	.....	572	359	564	.....	564	272
Wisconsin	311	46	281	39	5,021	144	5,165	742	5,370	248	5,618	714
Wyoming	8	14	18	20	340	23	363	212	398	38	436	245
U.S. Government	2	182	9	13	46	3	49	929	139	.....	139	547
Miscellaneous‡	.....	72	.....	91	85	3	88	1,316	44	4	48	1,552
TOTAL	**7,165**	**3,360**	**5,567**	**2,271**	**120,745**	**8,009**	**128,754**	**44,020**	**119,544**	**10,456**	**130,000**	**38,533**

Data released January 23, 1980, Farm & Industrial Equipment Institute.

*Figures do not include garden tractors, motor tillers or contractors off-highway types. Report includes units marketed by these firms: Allied Farm Equip. (Leyland, Satoh); Allis-Chalmers; Belarus; J I Case; Deere; Deutz; Ford; Hy-Dynamic; International Harvester; JCB Excavators; K-D Mfg.; Long; Massey-Ferguson; Pettibone; R. M. Wade (Satoh); Steiger; Versatile; White; and Woods & Copeland.

†The monthly sales are those reported for that month only. The cumulative totals are subject to revisions reflecting updating in the basic sales data.

‡Sales reported as miscellaneous are retail sales that cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

RETAIL SALES OF SELECTED FARM EQUIPMENT—Jan.-Nov., 1978 and 1979 (1)

(In Units)

	Combines Self-Propelled		Corn Heads		Hay Balers (2)		Windrowers Self-Propelled Power Units		Windrowers Self-Propelled Total Heads		Grinder-Mixers		Shear-Bar Forage Harvesters (3)	
	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979
Alabama	514	478	159	102	375	248	1	1	1	1	192	213	61	59
Alaska	.....	3	.....	.....	6	9	.....	.....	.....	.....	.....	.....	1	.....
Arizona	47	30	10	5	35	43	73	60	78	66	6	4	11	15
Arkansas	1,011	1,062	6	11	506	417	2	2	1	1	58	57	21	28
California	248	231	74	61	207	239	294	285	314	313	5	15	81	77
Colorado	242	299	124	152	417	498	252	279	252	286	46	67	160	182
Connecticut	1	2	2	1	76	65	1	.....	1	.....	1	2	39	66
Delaware	47	55	37	36	34	18	3	.....	3	.....	4	10	14	14
Florida	156	136	92	72	135	113	.....	2	.....	2	62	62	32	25
Georgia	682	724	550	503	360	240	5	1	5	1	456	493	137	130
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	.....
Idaho	353	357	15	11	517	492	296	354	305	365	23	41	62	70
Illinois	3,408	3,147	3,335	3,326	406	393	30	15	30	15	628	633	345	360
Indiana	1,938	1,865	1,926	1,968	488	414	15	12	15	12	542	566	271	256
Iowa	3,458	3,265	3,661	3,905	481	456	257	260	264	256	1,639	1,917	941	911
Kansas	1,502	1,717	366	388	430	492	346	403	354	415	261	331	275	340
Kentucky	488	547	389	384	654	454	4	3	4	4	270	312	252	225
Louisiana	621	632	8	1	180	159	1	.....	1	.....	12	13	24	21
Maine	8	2	.....	.....	92	88	.....	3	.....	3	.....	1	36	63
Maryland	161	148	156	161	163	133	12	8	13	7	41	46	87	117
Massachusetts	.....	.....	1	.....	57	57	1	1	1	.....	4	1	32	36
Michigan	523	569	488	528	572	478	72	81	72	85	247	250	449	507
Minnesota	1,970	1,925	1,689	1,815	1,081	952	843	754	873	777	644	882	1,064	1,172
Mississippi	765	857	19	9	257	205	.....	.....	.....	.....	64	61	70	74
Missouri	1,472	1,567	807	893	736	675	90	88	94	90	517	617	201	213
Montana	432	376	1	5	462	402	566	493	624	531	57	70	73	46
Nebraska	1,643	1,708	1,528	1,693	274	252	453	503	470	510	435	577	421	476
Nevada	7	3	.....	.....	51	54	66	74	71	77	1	1	7	6
New Hampshire	.....	.....	.....	.....	53	59	1	1	1	1	.....	2	27	37
New Jersey	62	45	28	15	75	65	3	.....	3	.....	11	13	38	31
New Mexico	20	30	9	12	179	168	98	98	97	98	13	18	9	11
New York	145	151	186	280	865	799	82	73	84	73	160	122	876	1,028
North Carolina	546	627	503	505	562	319	2	3	2	3	228	242	141	132
North Dakota	1,122	1,310	56	68	143	94	1,053	914	1,119	980	111	178	144	148
Ohio	1,550	1,557	1,341	1,462	883	691	17	14	17	14	459	504	340	377
Oklahoma	428	572	18	12	726	894	145	164	150	169	118	151	39	60
Oregon	243	206	14	13	381	323	337	251	354	253	18	35	92	83
Pennsylvania	247	258	280	280	1,114	953	84	89	83	90	290	318	677	757
Rhode Island	.....	.....	.....	.....	6	6	.....	.....	.....	.....	.....	1	7	1
South Carolina	333	360	189	185	174	101	.....	.....	.....	.....	101	125	41	37
South Dakota	675	678	466	497	288	179	809	776	849	837	277	383	406	481
Tennessee	627	655	237	214	796	600	2	1	2	1	230	261	224	221
Texas	862	930	270	274	1,341	1,417	97	118	103	129	202	237	59	84
Utah	49	40	13	15	332	320	153	148	156	150	58	71	92	95
Vermont	.....	.....	2	.....	127	132	2	1	2	1	2	2	124	175
Virginia	198	234	169	203	599	477	9	7	9	7	128	147	275	248
Washington	321	387	21	71	366	342	185	208	188	219	23	20	124	101
West Virginia	3	3	4	6	366	260	.....	.....	.....	.....	27	32	54	53
Wisconsin	531	541	618	665	2,021	1,948	389	388	373	392	487	593	2,232	2,335
Wyoming	48	49	11	15	228	208	185	193	193	203	16	24	35	49
U.S. Government	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous (4)	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....
TOTAL	**29,708**	**30,317**	**19,876**	**20,802**	**20,657**	**18,401**	**7,316**	**7,129**	**7,631**	**7,437**	**9,176**	**10,707**	**11,232**	**12,031**

Data released Jan. 23, 1980, Farm & Industrial Equipment Institute.

(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs.
(3) Pull-type, mounted, self-propelled.
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

Mower Conditioners All Types 1978	1979	Manure Spreaders Conveyor-Type 1978	1979	
261	236	20	18	Alabama
1	2	1	1	Alaska
3	6	7	9	Arizona
501	570	92	108	Arkansas
53	48	66	78	California
122	164	41	66	Colorado
90	90	81	78	Connecticut
30	18	58	68	Delaware
135	119	27	29	Florida
332	272	34	47	Georgia
.....	1	.....	2	Hawaii
134	119	134	122	Idaho
765	755	1,051	878	Illinois
711	691	736	686	Indiana
1,474	1,450	2,188	2,271	Iowa
694	981	207	252	Kansas
1,194	1,186	298	294	Kentucky
116	121	21	24	Louisiana
113	120	113	114	Maine
168	175	234	223	Maryland
81	81	59	72	Massachusetts
924	767	755	767	Michigan
1,274	1,437	1,599	1,832	Minnesota
196	195	25	31	Mississippi
1,592	1,750	371	422	Missouri
136	121	62	48	Montana
443	601	423	529	Nebraska
3	12	4	6	Nevada
82	69	61	51	New Hampshire
97	77	55	59	New Jersey
38	35	3	6	New Mexico
1,216	1,245	1,546	1,479	New York
478	376	164	158	North Carolina
129	169	182	109	North Dakota
1,237	1,086	967	976	Ohio
693	944	28	34	Oklahoma
241	193	98	114	Oregon
1,296	1,213	1,254	1,311	Pennsylvania
6	6	3	1	Rhode Island
170	139	30	31	South Carolina
120	146	292	348	South Dakota
853	925	153	175	Tennessee
1,329	1,515	126	146	Texas
188	180	145	95	Utah
242	249	239	264	Vermont
658	746	234	241	Virginia
199	153	110	138	Washington
224	238	83	90	West Virginia
3,138	3,101	2,713	2,826	Wisconsin
149	69	46	49	Wyoming
.....	.....	.....	.....	U.S. Government
.....	.....	1	1	Miscellaneous
24,329	**24,982**	**17,240**	**17,777**	**TOTAL**

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Talking about managing sales.
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Where do farmers buy parts, etc.?
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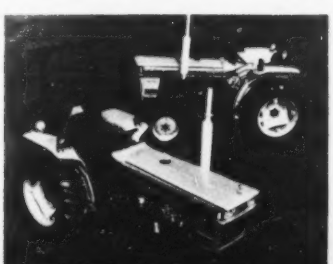

How many tractors were imported in 1979? *page 4*

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March 21, 1980 • Vol. 95 • No. 7

Implement & Tractor

The Business Magazine of the Farm and Industrial Equipment Industry

in this issue...

6: **It's a Solar Still!** Farm alcohol production is illegal in Australia, but the Australian developer of this solar distillation process hopes to find a large market in the U.S. The goal: commercial production later this year.

16: **Ernie Vietze Talks About Sales Management.** Dealers and other executives in this industry hear a lot about the whiz of a salesman who rises beyond his abilities to become a mediocre sales manager. But sometimes it works out better. Witness Ernie Vietze, a man who loved—and loves—to sell farm equipment, and who brings his salesmen to love it too.

20: **Selling to the Small-Time, Part-Time Farmer.** Dealers and manufacturers, who are able to scale down their thinking from giant tractors and combines to small, simple tools and machines for the sundown farmer, will find a large market out there, eager to be served.

26: **Where Do Farmers Go to Get Their Machinery, Parts, Service?** An encouraging report (to farm equipment dealers, anyway) on farmers' purchasing preferences, based on a USDA survey.

DEPARTMENTS

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RETAIL SALES OF WHEEL TRACTORS*

(In Units)

	Total Wheel Tractors†				Cumulative for Jan.-Dec., 1978				Cumulative for Jan.-Dec., 1979			
	Dec., 1978		Dec., 1979		Farm Type				Farm Type			
	Farm	Non-Farm	Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm
Alabama	181	40	130	26	2,807	62	2,869	844	2,654	48	2,702	626
Arizona	56	58	76	55	686	69	755	692	687	110	797	700
Arkansas	281	53	260	31	3,601	304	3,905	917	3,708	305	4,013	692
California	424	239	407	217	4,351	333	4,684	3,723	4,675	413	5,088	3,832
Colorado	57	43	62	48	947	89	1,036	781	1,009	184	1,193	741
Connecticut	14	24	7	22	200	3	203	365	187	2	189	282
Delaware	15	8	25	3	175	14	189	87	236	19	255	56
Florida	145	81	184	92	2,339	97	2,436	1,670	2,247	94	2,341	1,733
Georgia	266	54	185	39	4,121	57	4,178	980	3,663	54	3,717	887
Idaho	79	15	98	14	1,158	145	1,303	278	1,083	180	1,263	212
Illinois	740	84	499	82	7,774	813	8,587	2,081	6,720	931	7,651	1,717
Indiana	494	64	403	89	5,069	471	5,540	1,370	4,278	572	4,850	955
Iowa	933	31	646	40	9,187	492	9,679	595	8,867	804	9,671	492
Kansas	288	28	332	32	3,491	488	3,979	400	4,162	662	4,824	416
Kentucky	294	57	164	66	4,747	104	4,851	1,088	4,369	110	4,479	845
Louisiana	198	69	196	38	2,600	246	2,846	1,338	2,526	204	2,730	888
Maine	8	11	12	11	244	1	245	163	227	2	229	144
Maryland	68	29	51	43	791	22	813	665	800	42	842	557
Massachusetts	3	38	6	28	129	.....	129	517	144	.....	144	376
Michigan	248	86	342	102	3,162	250	3,412	1,591	2,959	297	3,256	1,536
Minnesota	632	65	434	88	6,560	579	7,139	686	6,107	989	7,096	787
Mississippi	306	24	206	30	3,626	215	3,841	770	3,360	181	3,541	602
Missouri	502	80	291	66	5,172	251	5,423	1,173	5,275	300	5,575	989
Montana	102	11	85	11	825	427	1,252	220	911	447	1,358	194
Nebraska	472	18	401	30	4,077	205	4,282	343	4,418	342	4,760	315
Nevada	4	12	6	22	79	3	82	224	123	11	134	237
New Hampshire	14	5	9	14	150	.....	150	162	145	1	146	125
New Jersey	24	42	18	41	359	6	365	804	306	9	315	726
New Mexico	16	15	10	26	396	24	420	370	436	27	463	349
New York	230	57	213	73	2,825	105	2,930	1,460	2,736	144	2,880	1,181
North Carolina	321	104	215	59	4,533	51	4,584	1,257	3,945	77	4,022	928
North Dakota	242	11	205	30	2,543	858	3,401	277	2,421	1,141	3,562	267
Ohio	522	103	388	78	5,744	353	6,097	2,154	4,576	428	5,004	1,751
Oklahoma	153	59	204	58	2,748	255	3,003	894	3,384	462	3,846	781
Oregon	83	53	93	39	1,336	87	1,423	637	1,284	101	1,385	574
Pennsylvania	233	99	167	135	2,781	31	2,812	2,017	2,407	47	2,454	1,563
Rhode Island	1	6	1	6	26	.....	26	68	26	.....	26	47
South Carolina	165	47	95	28	1,871	33	1,904	613	1,805	46	1,851	504
South Dakota	213	15	170	7	2,518	274	2,792	208	2,352	360	2,712	185
Tennessee	343	55	209	52	4,558	91	4,649	1,123	3,881	83	3,964	931
Texas	584	254	603	254	8,754	415	9,169	4,439	10,143	641	10,784	4,508
Utah	50	30	40	55	619	16	635	480	693	18	711	514
Vermont	29	7	22	4	386	4	390	96	394	10	404	75
Virginia	168	55	126	71	2,568	10	2,578	1,081	2,495	21	2,516	769
Washington	114	125	116	53	1,577	194	1,771	1,083	1,649	202	1,851	877
West Virginia	26	39	30	24	598	.....	598	398	594	.....	594	296
Wisconsin	485	43	442	55	5,473	160	5,633	785	5,768	282	6,050	769
Wyoming	19	19	26	18	357	25	382	231	419	43	462	263
Alaska	4	4	8	2	20	.....	20	56	27	1	28	40
Hawaii	3	2	2	3	70	6	76	92	52	4	56	106
U.S. Government	2	28	16	18	48	3	51	957	155	.....	155	565
Miscellaneous‡	2	.....	1	78	87	3	90	1,316	45	4	49	1,630
TOTAL	**10,856**	**2,599**	**9,007**	**2,606**	**130,863**	**8,744**	**139,607**	**46,619**	**127,535**	**11,455**	**138,990**	**41,136**

Data released Feb. 21, 1980, Farm & Industrial Equipment Institute.

*Figures do not include garden tractors, motor tillers or contractors off-highway types. Report includes units marketed by these firms: Allied Farm Equip. (Leyland Satoh); Allis-Chalmers; Belarus; J I Case; Deere; Deutz; Ford; Hy-Dynamics; International Harvester; JCB Excavators, K-D Mfg.; Long; Massey-Ferguson; Pettibone; R. M. Wade (Satoh); Steiger; Versatile; White; and Woods & Copeland.

†The monthly sales are those reported for that month only. The cumulative totals are subject to revisions reflecting updating in the basic sales data.

‡Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government.

RETAIL SALES OF SELECTED FARM EQUIPMENT—Jan.-Dec., 1978 and 1979 (1)

(In Units)

	Combines Self-Propelled		Corn Heads		Hay Balers (2)		Windrowers Self-Propelled Power Units		Windrowers Self-Propelled Total Heads		Grinder-Mixers		Shear-Bar Forage Harvesters (3)	
	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979
Alabama	539	504	161	107	378	252	1	1	1	1	220	231	64	63
Arizona	47	35	10	5	36	43	77	63	82	69	7	4	10	16
Arkansas	1,045	1,123	6	11	524	427	2	2	1	1	65	62	21	28
California	253	237	75	65	210	244	302	300	322	327	6	15	84	80
Colorado	249	316	132	166	422	507	257	284	257	289	54	70	162	195
Connecticut	1	2	2	1	76	67	1	.....	1	.....	1	2	40	68
Delaware	50	55	40	37	34	18	3	.....	3	.....	7	12	14	15
Florida	165	148	93	76	140	113	.....	3	.....	3	69	64	34	26
Georgia	725	764	575	532	365	244	5	1	5	1	520	542	139	133
Idaho	360	371	15	12	530	505	302	357	311	369	30	48	64	74
Illinois	3,600	3,305	3,549	3,533	414	399	30	15	30	15	748	679	354	365
Indiana	2,048	1,964	2,075	2,095	498	422	17	12	17	12	599	605	281	263
Iowa	3,665	3,474	3,866	4,191	486	459	265	262	272	257	1,893	2,062	954	930
Kansas	1,605	1,851	384	425	448	495	359	411	367	421	314	363	283	348
Kentucky	508	579	411	412	669	455	5	3	5	4	302	345	258	235
Louisiana	657	650	8	2	184	164	1	.....	1	.....	15	17	24	26
Maine	8	2	.....	.....	94	89	.....	3	.....	3	.....	1	36	63
Maryland	171	161	175	171	169	137	12	8	13	7	46	51	88	123
Massachusetts	.....	.....	1	.....	61	59	1	1	1	.....	4	1	32	38
Michigan	562	609	532	592	583	483	72	81	72	85	270	273	466	527
Minnesota	2,110	2,085	1,813	2,004	1,111	971	859	781	888	804	725	918	1,096	1,199
Mississippi	806	891	20	10	262	209	.....	.....	.....	.....	76	70	71	76
Missouri	1,575	1,676	868	939	751	685	92	87	96	89	583	667	205	217
Montana	456	393	1	5	464	413	569	511	624	551	65	87	68	48
Nebraska	1,738	1,845	1,605	1,816	278	257	457	518	474	525	522	633	428	486
Nevada	7	4	.....	.....	52	59	66	76	71	77	1	2	7	6
New Hampshire	.....	.....	.....	.....	55	59	1	1	1	1	.....	2	29	39
New Jersey	68	48	32	17	78	65	3	.....	3	.....	12	14	38	32
New Mexico	21	32	9	12	187	168	98	99	97	99	13	19	9	11
New York	171	179	204	287	882	812	83	74	85	74	174	133	913	1,054
North Carolina	591	662	544	530	569	327	2	3	2	3	252	257	143	141
North Dakota	1,182	1,383	67	86	145	96	1,063	922	1,130	986	124	194	144	155
Ohio	1,655	1,654	1,450	1,582	904	709	17	14	17	14	498	538	356	391
Oklahoma	461	620	22	15	743	907	152	168	155	172	141	187	39	61
Oregon	248	220	15	13	389	335	348	260	365	265	25	37	95	87
Pennsylvania	272	283	303	305	1,141	977	88	89	87	90	323	350	689	789
Rhode Island	.....	.....	.....	.....	6	6	.....	.....	.....	.....	.....	1	7	1
South Carolina	355	384	199	194	178	102	.....	.....	.....	.....	120	127	41	38
South Dakota	712	725	497	540	272	183	821	784	863	842	340	429	415	485
Tennessee	686	692	254	223	804	610	2	1	2	1	281	289	227	229
Texas	897	966	276	278	1,369	1,445	98	119	104	132	231	270	60	86
Utah	49	41	13	15	339	329	156	156	159	158	70	78	94	97
Vermont	.....	.....	2	.....	132	132	2	1	2	1	2	3	131	177
Virginia	216	259	181	221	610	488	9	7	9	7	145	165	283	259
Washington	328	381	24	71	367	348	187	213	191	226	29	20	130	104
West Virginia	4	3	5	6	373	265	.....	.....	.....	.....	32	36	56	58
Wisconsin	575	611	669	755	2,069	1,988	377	397	381	401	570	661	2,303	2,457
Wyoming	52	52	13	16	229	214	188	203	196	212	18	33	36	52
Alaska	.....	6	.....	.....	6	9	.....	.....	.....	.....	.....	.....	1	.....
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	.....
U.S. Government	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous (4)	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	.....	.....
TOTAL	**31,494**	**32,246**	**21,196**	**22,374**	**21,086**	**18,750**	**7,450**	**7,291**	**7,763**	**7,594**	**10,544**	**11,673**	**11,523**	**12,451**

Data released Feb. 21, 1980, Farm & Industrial Equipment Institute.

(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs.
(3) Pull-type, mounted, self-propelled.
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

Mower Conditioners All Types		Manure Spreaders Conveyor-Type		
1978	1979	1978	1979	
264	242	20	18	Alabama
4	6	9	9	Arizona
520	574	101	115	Arkansas
54	49	69	86	California
125	166	42	71	Colorado
93	90	86	85	Connecticut
31	18	64	73	Delaware
141	124	28	30	Florida
340	279	36	51	Georgia
135	123	144	137	Idaho
782	773	1,128	916	Illinois
728	709	766	717	Indiana
1,501	1,480	2,409	2,391	Iowa
715	1,010	219	263	Kansas
1,235	1,217	303	316	Kentucky
118	126	21	26	Louisiana
115	121	116	119	Maine
174	182	242	230	Maryland
86	81	67	76	Massachusetts
949	786	828	824	Michigan
1,309	1,474	1,849	1,995	Minnesota
202	198	28	31	Mississippi
1,627	1,787	384	441	Missouri
137	129	64	50	Montana
462	623	442	549	Nebraska
3	12	7	7	Nevada
83	70	62	53	New Hampshire
97	80	58	63	New Jersey
38	38	3	8	New Mexico
1,258	1,265	1,732	1,649	New York
489	389	171	166	North Carolina
131	172	190	114	North Dakota
1,284	1,121	1,028	1,033	Ohio
705	960	29	36	Oklahoma
251	201	107	135	Oregon
1,329	1,252	1,367	1,429	Pennsylvania
6	6	3	1	Rhode Island
174	141	32	32	South Carolina
122	147	305	362	South Dakota
866	943	162	188	Tennessee
1,367	1,548	136	153	Texas
191	168	157	106	Utah
248	253	261	282	Vermont
676	762	247	261	Virginia
204	156	122	150	Washington
228	250	88	99	West Virginia
3,208	3,202	3,132	3,103	Wisconsin
151	74	47	54	Wyoming
1	2	1	1	Alaska
.....	1	.....	2	Hawaii
.....	.....	.....	.....	U.S. Government
.....	.....	1	1	Miscellaneous
24,957	25,600	18,913	19,107	TOTAL

March 21, 1980

NOTE

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4, 18-20.

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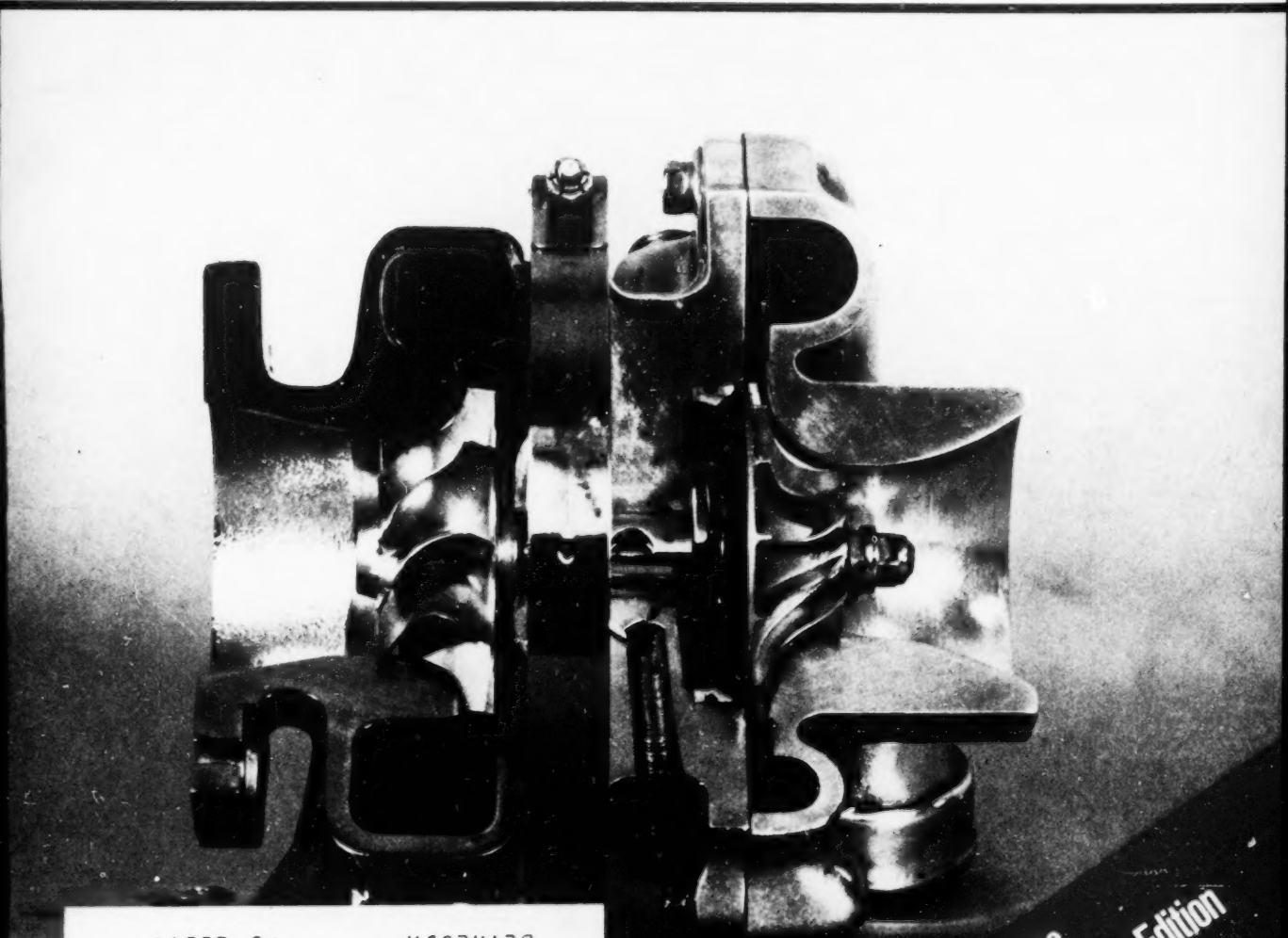

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